

# EDTA Chelation Therapy

## Detoxification of heavy metals and the healthy heart program.

Chelation is a proven, safe, and effective treatment for circulatory disorders. Since the human body has 60,000 miles of blood vessels that affect every cell and organ in our bodies, arguably the best way to maintain optimal health is to maintain the health of our circulation. Administered as a series of intravenous infusions in accordance with scientifically established protocols, Chelation has a track record of safety and efficacy unparalleled by other therapies.



Along with a healthy lifestyle including optimizing diet, exercise, and stress management, Chelation aids in restoring vigorous health and preventing degeneration and disease often associated with aging. These include cardiovascular diseases, the number one cause of mortality around the world. Medically supervised by a Doctor with advanced training in this field ensures the process is not only extremely safe but that patients receive individualized protocols that meet their

particular needs. The following article outlines the history and science behind this extraordinary therapy as well as introducing you to the Chelation protocol.

## EDTA Chelation Therapy: Introduction and History of Use

EDTA Chelation Therapy was first used during World War II as a poison gas antidote. Later it was used in the USA starting in 1948 as a treatment for industrial workers to remove lead. It has since remained as the approved and undisputed treatment of choice for lead poisoning. However, doctors began noticing that patients being treated for lead poisoning had the good fortune of also enjoying improvements in well-being, and particularly they noticed a decrease in symptoms related to heart and circulatory disease. For instance, some noticed a diminishment in angina (chest pain) and intermittent claudication (leg pain with walking) while others noticed better memory, sight, hearing, and increased vigor. It was speculated at this time that these improvements may be due to the removal of calcium and heavy metals from soft tissues and in particular from the lining of arteries. This mineralization causes hardening and atherosclerosis of the arteries.

In 1955 published articles first appeared in medical journals describing the successful treatment of atherosclerosis with EDTA chelation. Since this time researchers have proven EDTA chelation to be very useful in the treatment of atherosclerosis (hardening and plaquing of the arteries), arrhythmias, cerebral and peripheral vascular disease, hypercholesterolemia, toxic metal load, hemochromatosis, scleroderma, arthritis, multiple sclerosis, diabetes, Alzheimer's, porphyria, chronic obstructive pulmonary diseases and as a preventive of chronic disease and degeneration. It remains the treatment of choice for heavy metal toxicity (Lead, Mercury, Arsenic, Cadmium, Aluminum, tin, nickel etc.). \*Note: The CDC's list of Hazardous Substances lists 4 heavy metals in its top 7 most harmful substances to human health. The list reads as follows from most to least harmful top 7 toxins: 1) Arsenic 2) Lead 3) Mercury 4) Vinyl Chloride 5) PCBs 6) Benzene 7) Cadmium. Thus, detoxifying these metals from the body is arguably one of the most health promoting and illness preventing treatments available.

## **Chelation Therapy: What is it? What is the protocol?**

Chelation comes from the Greek word "Chele" which means a claw of a crab or lobster. Chelation is the pincer-like action of a molecule as it surrounds a metal ion like a claw. Once chelated or surrounded in this way the metals are removed from the body via the urine. EDTA (ethylene diamine tetra acetic acid) has the capacity to remove iron, mercury, lead, copper, nickel, zinc, cadmium, cobalt, aluminum, manganese, calcium, and magnesium. It removes some good minerals along with the bad and these must to be replaced with supplements. Calcium can be both good and bad. It is necessary for bone strength and proper metabolism, but as we age and our metabolism changes, calcium is deposited in soft tissues at an increasing rate. This is partially due to the fact that calcium is used by the body to repair damaged tissue. Ultimately this leads to hardening of the arteries and atherosclerosis, high blood pressure, heart attack and stroke. EDTA chelation selectively removes calcium from soft tissues and replaces calcium in hard tissue leading to improved bone density and softer, more pliable arteries. Other mechanisms by which Chelation improves health are the following: anti-inflammatory, anti-oxidant, detoxifying, energy enhancing, immune stimulating, blood pressure reducing, improves liver function, improves glucose metabolism which helps diabetics, and the enhancing of collagen production. This makes Chelation an important part of anti-aging strategies.

The protocol for chelation involves intravenous infusions which last 1.5-3 hours per treatment depending on individual needs. 10-30 treatments are required initially at 1-2 per week, then 10 per year as maintenance and prevention. Extensive blood and urine testing is required prior to treatment and intermittently during treatment to ensure adequate kidney, liver, and heart functioning. Often vascular studies and ECG's may be done ahead of treatment to determine the diagnosis and extent of the disease.

The infusion solution contains the following: sterile water, vitamin C, B-vitamins, magnesium, sodium bicarbonate, heparin, and EDTA. The vitamins and magnesium offer further therapeutic value to the mixture, the sodium bicarbonate decreases the acidity of the solution and the heparin prevents infusion site phlebitis or inflammation and clotting.

## Science and Research

You may find this hard to believe, but EDTA chelation therapy is equally as proven as bypass surgery and angioplasty. However, in contrast to these more drastic invasive treatments (which although often necessary and lifesaving) EDTA chelation treats the whole body, both large and small blood vessels, as opposed to one artery in one location. Often it can prevent the need for more drastic measures. Here is some of the science:

2012, "The Trial to Assess Chelation Therapy" aka the TACT trial.

This high level clinical trial (the gold standard for measuring a therapy's effectiveness) conducted by the US based NIH (National Institute of Health) over a 10-year period showed the efficacy of EDTA Chelation therapy to prevent second heart attacks, strokes, and/or other deleterious cardiac events. Overall there was an 18% reduction in clinical events with the Chelation group. In the subset of patients with the most serious heart attacks this number increased to 37% and in Diabetic patients the reduction in events was a whopping 39%.

1993, "The Correlation between EDTA Chelation Therapy and Improvement in Cardiovascular function: A Metaanalysis" Based on 40 articles. 22,765 patients reviewed. 0.88 correlation coefficient indicating a strong relationship between EDTA chelation and improved cardiovascular function. 87% of patients showed clinically measurable improvement.

1993, "Benefits of EDTA Chelation Therapy in Atherosclerosis: A retrospective study of 470 patients"

This 6-year analysis showed an overall health improvement rate of 80-91%. Of 92 patients referred for surgery, after Chelation, only 10 required surgery. This saved over \$3 million in insurance money! No side effects or casualties.

1991 "A Non-Surgical Approach to Obstructive Carotid Stenosis Using EDTA Chelation"

This study showed clearly the reversal of atherosclerotic plaque in the carotid arteries of patients receiving EDTA Chelation. The study employed Ultrasound imaging and involved 30 treatments over 10 months. Results were striking and highly significant. Overall intra-arterial obstruction decreased 20.9%. The patients with the most severe stenosis had the greatest reduction in obstruction.

1990 Double Blind Placebo Controlled Study "A Pilot Double Blind Study of Na-Mg EDTA in Peripheral Vascular Disease" 10 patients. All patients improved significantly and none of the placebo group improved. With cross over, they also improved.

1989 "Effect of EDTA Chelation and Supportive Multivitamin Trace Mineral Supplementation on Chronic Lung Disorders: A Study of FVC and FEV1" Significant improvement occurred in both FVC and FEV1 (measurements of air capacity and flow in the lungs). The patients with more severe problems improved the most. 34 of 38 patients improved.

### 1988 “EDTA Chelation Therapy: A Retrospective Study of 2870 Patients”

Various chronic degenerative diseases were examined: Ischemic heart disease (Angina): 76.89% marked improvement, 16.56% good improvement PVD and Intermittent claudication: 91% marked improvement, 7.6% good improvement Cerebral vascular disease: 24% marked improvement, 30% good improvement.

Other research has shown improved bone mineral density and blood thinning qualities of EDTA Chelation therapy.

There are no absolute contraindications for EDTA chelation. It is extremely rare for anyone to have a severe EDTA allergy, but it is possible. Also, patients on dialysis are a relative contraindication and patients with Congestive Heart Failure must be chelated slowly and carefully to avoid fluid overload.

## Pre-Chelation Work up

Complete blood screening for organ functioning, iron levels, blood cell analysis, toxic metal analysis, and urine analysis is completed ahead of time. During treatment urinalysis, may be completed intermittently and kidney function is tested every 10 treatments. Any vascular studies which are available will be examined. Arterial stiffness studies may be completed in-office prior to starting the treatments. This helps to define what the diagnosis is, how severe it is, and helps to monitor progress.

## Other Chelating Agents

Two other chelating agents are often used to augment the use of EDTA. They are DMPS and DMSA. DMPS is an intravenous agent which has high affinity for mercury and is the primary agent used in mercury detoxification. DMSA is an oral agent which also detoxifies Mercury well. It works in conjunction with EDTA to remove tissue lead (EDTA is better at removing bone lead and DMSA is better at removing tissue lead, so they can work well together). If required the following protocols are suggested:

DMPS: IV 5mg/kg, not to exceed 250 mg per dose once weekly or every 2 weeks.

DMSA: Oral 30mg/kg per day in 3 divided doses not to exceed 2200 mg per day, 5 days per 2-week schedule.

Thank you for taking the time to learn about Chelation, a time-honored therapy which has benefitted hundreds of thousands of people worldwide and provides a healthy option for maintaining great health and preventing illness. Dr. Tamara Browne has the experience, knowledge, and training to ensure you receive the most updated, cutting-edge therapies available today. With a medical degree in Naturopathic Medicine she upgrades her education continually to offer her patients the latest advancements in natural medicine strategies. Treating the whole person on every level with expert nutritional, herbal, homeopathic, hormonal and lifestyle advice, Naturopathic Doctors are well positioned to integrate natural strategies in to your health care needs.